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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/415,679	10/08/1999	XI CHEN	15962-0012	5155

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EXAMINER	
CHANG, EDITH M	
ART UNIT	**PAPER NUMBER**
2637	

DATE MAILED: 09/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/415,679	CHEN, XI	
	Examiner	Art Unit	
	Edith M Chang	2637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 June 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *Dec 09 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments/Remarks

1. Applicant's arguments filed June 30 2004 have been fully considered. The 112 rejections of claims 2 to 23 are withdrawn. The new rejections are as following:

Claim Objections

2. Claims 6 and 14 are objected to because of the following informalities:

Claims 6 & 14, line 2: "said received signal" is suggested changing to "the received signal".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 7-9 and 18-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 2, 10, 17, and , line 4; "a live transceiver circuit" does not clearly indicate that it is the same circuit as the "a transceiver circuit", or another circuit called "a live transceiver circuit"; line 5: "a live transceiver" does not clearly indicate what is the connection or relationship of it with the "a transceiver circuit" in this claim.

Claim 18, line 2: the "an industry-standard pulse" in "said pulse conforms to an

industry-standard pulse" is not clearly that what is the connection or relation to the "an industry-standard pulse" in the claim 17.

Claim 19, line 2: "said received signal" lacks antecedent basis.

Claim 20, lines 2-3: "said transmitter pulse" lacks antecedent basis.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 2-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crayford (US 5404544) in view of Wakeley et al. (US 6198727 B1).

Regarding **claims 2 & 21**, In FIG.-1 to FIG.-3, Crayford discloses a transceiver circuit comprising a transmitter subcircuit/means and a receiving subcircui/means having its own power supply and means for activation and deactivation (37' & 37a' as separate transmitter/receiver circuit in FIG.-3). In FIG.3 and column 3 lines 44-58, the transmitter subcircuit transmitting the link beat pulse 60 (this is not conform to the MLT-3 pulse) in FIG.3 to indicate the link is in place/a live transceiver even during powered-down mode, and the transmitter subcircuit is active/alive when transmitting (column 2 lines 18-22, lines 34-37), but Crayford does not specify the extension of IEEE 802.3 standard (802.3 u) for interoperability in the LAN. However Wakeley et al. teaches using parallel detection (that is idle data packet using the MLT-3 waveform in IEEE 802.3u, section 28.2.3.1,this is the an industry-standard pulse) for legacy devices such as 10Base-T

devices for link assurance in column 1 lines 50-65, FIG.1 and FIG.2. Through Wakeley et al.'s teaching the transceiver is able to automatically establish the link connection between different network link partners. Therefore, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to implement the parallel detection in the physical layer of Crayford's device for the purpose of establishing a link between disparate network entities in a 10Base-T/100Base-TX network (column 2 lines 55-60).

Regarding **claims 3-4 & 11-12**, Crayford discloses the pulse is a link pulse (column 3 lines 47-48, FIG.-2 & -3) and is a minimally powered pulse.

Regarding **claim 5**, further Wakeley et al. teaches the pulse conforms to the industry-standard pulse (the parallel detection column 1 lines 49-65) once the circuit is in the operating mode that is a signal being received on the receiver.

Regarding **claims 6, 14 & 19**, Crayford does not specify the transceiver entering into auto-negotiation mode to identify the received signal, however Wakeley et al. teach the auto-negotiation process (column 3 lines 49-56). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have the Wakeley et al.'s teaching implemented in Crayford's system to link automatically to all 10Base-T/100Base-TX partners regardless of their capability (column 1 lines 7-11, column 3 lines 64-column 4 lines 2).

Regarding **claim 7**, Crayford discloses the receiver subcircuit is active/power-on for receiving data (column 2 lines 34-37), but does not specify the receiver having a media independent interface. However Wakeley et al. teach the media independent interface in the LAN layers (18 FIG. 1). At the time of the invention, it would have been

obvious to a person of ordinary skill in the art to cooperate the Wakeley et al.'s teaching in Crayford's system for the schematic detail of the LAN OSI reference model and for receiving signal from the network via the interface.

Regarding **claims 8 & 15**, Crayford discloses the receiver upon receiving activity (column 4 lines 24-28) activating the transceiver into power-on mode (column 4 lines 28-30 & 32-36).

Regarding **claims 9 & 16**, Crayford discloses the transceiver in power-down mode powering-down all subcircuits except the transmitter pulse subcircuit (column 2 lines 33-36, column 3 lines 44-48) and the media independent interface subcircuit (column 2 lines 18-22, column 3 lines 48-51).

Regarding **claims 10 & 22**, except the limitation of media independent interface, Crayford discloses all claimed subject matter (refer to the rejection of claims 2 & 21). Further Wakeley et al. teaches the media independent interface in the LAN layers (18 FIG. 1, column 1 lines 25-40). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to cooperate the Wakeley et al.'s teaching in Crayford's device for the schematic detail of the LAN/OSI reference model that the circuit equipped with and for receiving signal from the network via the interface.

Regarding **claim 13**, Wakeley et al. teach the pulse conforming to the industry-standard pulse (column 1 lines 49-65). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have the Wakeley et al.'s teaching implemented in Crayford's devcie to link automatically to all 10Base-T/100Base-TX partners regardless of their capability (column 1 lines 7-11, column 3 lines 64-column 4 lines 2).

Regarding **claims 17 & 23**, Crayford has all subject matter claimed except the media independent interface (refer to the rejection of claims 4), however Wakeley et al. teaches the media independent interface in the LAN layers (18 FIG. 1). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to cooperate the Wakeley et al.'s teaching in Crayford's system for the schematic detail of the LAN OSI reference model and for receiving signal from the network via the interface.

Regarding **claim 18**, Crayford does not specify the pulse conforms to an industry-standard pulse, however Wakeley et al. teach the pulse conforming to an industry-standard pulse (column 1 lines 49-55, column 4 lines 37-48). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have the Wakeley et al.'s teaching implemented in Crayford's system to link automatically to all 10Base-T/100Base-TX partners regardless of their capability (column 1 lines 7-11, column 3 lines 64-column 4 lines 2).

Regarding **claim 20**, Crayford discloses the transceiver in power-down mode powering-down all subcircuits except the transmitter pulse subcircuit (column 2 lines 33-36, column 3 lines 44-48) and the media independent interface subcircuit (column 2 lines 18-22, column 3 lines 48-51).

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edith M Chang whose telephone number is 571-272-3041. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jayanti Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Edith Chang
August 31, 2004

YOUNG T. TSE
PRIMARY EXAMINER